

VALUE ADDED CANVAS EMBROIDERY CLOTHING ARTICLES

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ABSTRACT

Canvas embroidery is one of the oldest forms of embroidery. It is the technique of forming stitches on a special open-weave fabric known as canvas and known by a number of names i.e. needlepoint work, needlework tapestry, canvas needlework and canvas work or canvas embroidery. It was very popular in late nineteenth century but now it has lost some of its popularity due to repetitive use of cross stitch, same old designs and use of cotton threads only. Innovative designs can give a new dimension to canvas embroidery. Latest and advanced digital embroidery technology supports new design trends and designers' aspirations. Digital embroidery plays an important role in the present fashion world. The most intricate and exquisite embroidery design can be mass produced with the help of digital embroidery machines and embroidery digitizing software.

The innovative digital canvas embroidery designs and its presentation in an attractive style using various value addition techniques like variety of threads and fabrics, embroidery ornamentation material i.e. sequins, beads and stones and a combination of canvas stitches can help to keep this art alive and can also make it suitable for wide range of articles like clothing articles and clothing accessories. Two value added canvas embroidery clothing articles were developed by using innovative canvas embroidery designs, variety of threads and fabrics, embroidery ornamentation material like sequins, beads and stones and a combination of canvas stitches, as per consumer demand. A variety of straight, diagonal, cross and composite canvas stitches when supplemented with prevalent embroidery ornamentation material add amazing fluidity and clarity in the canvas embroidery designs. It was found that both articles were found highly acceptable in descending order i.e. *Kurti* (4.47), belt (4.36). *Kurti* was mainly appreciated by the young consumers as they considered it a fresh trendy arrival in the market.

They considered its fabric as super cool for Indian sweltering hot climatic conditions. The blend of ethnic motif and modern buckle of belt made it a unique Indo-western clothing accessory which can be complemented with a variety of dresses. High acceptance level of consumers for value added articles on various parameters of design denoted the effective execution of value addition techniques. All the four value addition techniques together considered as a successful effort to popularize the fascinating art of canvas embroidery by intermingling the innovative modern creation with old to give it a contemporary look, which can be used for production of number of canvas embroidery products ranging from clothing articles to clothing accessories.

KEYWORDS: Colour, Digital Canvas Embroidery, Embroidery, Ornamentation Material, Placement, Value Added Articles

INTRODUCTION

Canvas embroidery is the technique of forming stitches on a special open-weave fabric known as canvas. It is one of the oldest forms of embroidery and known by a number of names i.e. needlepoint work, needlework tapestry, canvas

needlework and canvas work or canvas embroidery. The most suitable of the many names applied to the work are undoubtedly canvas work or canvas embroidery. In almost all the districts of Haryana, canvas embroidery enjoys a high favour among villagers for their personal use as a bed-cover, table cloth, furniture coverings and wall panels, etc. It is locally known as *dasuti kadhai* in rural Haryana and mainly worked on *jali casement* and sometimes on *khaddar casement* with woollen or cotton threads. They also use plastic canvas for decorative articles especially wall-panels.

The commonly employed stitch is cross stitch. For most of the Indian women, canvas embroidery means embroidery on canvas, worked entirely in cross stitch. To work only in cross stitch can be tedious indeed, not only in execution, but also in the finished result. This embroidery was very popular in late nineteenth century but now it has lost some of its popularity due to repetitive use of cross stitch, same old designs and use of cotton threads only. Innovative designs can give a new dimension to canvas embroidery. Innovative designs are the designs which are creative and different than those of the existing practices. Besides this, we need to be innovative on the front of product development and diversification that is led by fusion of design and technology. Latest and advanced digital embroidery technology supports new design trends and designers' aspirations. Digital embroidery plays an important role in the present fashion world.

The most intricate and exquisite embroidery design can be mass produced with the help of digital embroidery machines and embroidery digitizing software. The innovative digital canvas embroidery designs and its presentation in an attractive style using various value addition techniques like variety of threads and fabrics, embroidery ornamentation material i.e. sequins, beads and stones and a combination of canvas stitches can help to keep this art alive and can also make it suitable for wide range of articles like clothing articles and accessories.

Punia and Singh (2008) have stated that to save the reminiscent beauty of the traditional Indian embroideries, famous Indian designers have given these a fresh look by using varying stitches, threads, fabrics and by supplementing embroidery with fascinating embroidery ornamentation material.

Naik and Wilson (2006) stated that digital/computer assisted embroidery can be applied to a variety of fabrics. It can be worked with many types of threads: cotton, silk, wool, linen, gold, silver and even special hair. Decorative objects such as shells, beads, sequins, jewels, coins and mirror are often sewn to these embroidered pieces. This type of embroidery is capable in handling every user's requirements, ranging from monogramming and sampling to heavy embroidery.

Poelo (2009) reported that computerized embroidery became popular for two reasons. First reason is that it lessens the amount of labour placed into the work as the computer and the digitizing software do most of the work as in perfecting the design and embroidery. With this machine embroidery technique, there is less effort given and no time wasted at all. The second reason is because of the lesser cost incurred in embroidery digitizing.

Keeping these facts in mind a study was conducted to develop a few value added canvas embroidery clothing articles and accessories.

MATERIALS AND METHODS

The experimental work for the present study was undertaken in Hisar city and New Delhi.

Fifty consumers with up-market taste who visited the selected selling units of Hisar city were selected from different locations of Hisar city namely Chaudhary Charan Singh Haryana Agricultural University, Hisar; Guru Jambheshwar University of Science & Technology, Hisar; Hisar Cantonment and Fateh Chand College for Women, Hisar.

For obtaining the preferences of consumers for canvas embroidery articles, an exhaustive list of canvas embroidery articles was prepared on the basis of market survey (opinion of retailers) and related literature. The choice preferences of consumers were obtained using preferential choice index. The order of preference of consumers for articles on the basis of overall appearance was also studied.

A collection of ten digital innovative embroidery designs was created using a theme. The theme 'OCEAN LIFE' was selected by Advisor and researcher on the basis of results of market survey and related literature available on canvas embroidery. The designs were created with the help of designer of Brahmaputra Needle Craft (Pvt.) Limited, Okhla, New Delhi using eXPerience wings/XP wings Version 2.5, embroidery software. These designs were developed on the basis of shape, size and end-use of articles. The prepared designs were subjected to evaluation by experts. The 30 experts who were having basic knowledge of canvas embroidery were purposively selected from the Department of Clothing & Textiles, Chaudhary Charan Singh Haryana Agricultural University, Hisar; Fateh Chand College for Women, Hisar and Govt. Post-graduate College, Hisar. The preferences of experts were taken using preferential choice index.

The four value addition techniques i.e. fabric, thread, stitches and embroidery ornamentation material were selected with the consent of advisor on the basis of results of market survey and related literature available on canvas embroidery.

For the selection of raw material i.e. fabric, thread, their colour and embroidery ornamentation material along with different types of canvas stitches for various preferred articles, preferences of 30 experts were taken using preferential choice index.

Acceptability and Comparative Analysis of Articles

The acceptability of developed value added articles was evaluated for various design parameters i.e. eye-catching design, design placement, motifs, appropriate design proportion, colour combination, style, workmanship, shape, utility and uniqueness by the already selected 50 consumers having up-market taste using self structured five quantum scale.

For each parameter, the frequency of each rating was multiplied by the respective weightage to calculate the Weighted Mean Score. The sum of weighted mean score of all the parameters of value added articles was divided by the number of parameters i.e.10 to obtain the aggregate weighted mean score for each article. These articles were finally rated on the basis of their weighted mean score as highly acceptable (4.21 – 5.00), fairly acceptable (3.41 – 4.20), acceptable (2.61–3.40), somewhat acceptable (1.81 – 2.60) and not acceptable (1.00 – 1.80).

Development of Digital Canvas Embroidery Articles

The requirement of the raw material i.e. fabric, thread and embroidery ornamentation material was calculated and purchased from the local market. The selected design of each article was embroidered in suggested placement and colour. Two value added canvas embroidery clothing articles were produced at Brahmaputra Needle Craft (Pvt.) Limited, Okhla, New Delhi in the monitoring of designer and researcher.

RESULTS AND DISCUSSIONS

Fifty consumers with up-market taste who visited the selected 20 selling units were asked for their choices for canvas embroidery article along with their personal profile. The choice preferences of consumers observed during visit of different selected selling units of Hisar and New Delhi were also taken into consideration.

The, majority of consumers were post-graduate (62%), having 31-40 years of age (54%), belonged to the family

whose main occupation was service (82%) and monthly family income was above Rs. 50,000/- (48%).

Digital Canvas Embroidery Articles

The *Kurti* and belt as clothing articles and accessories were the articles selected for development of value added canvas embroidery articles.

Designs Development and Selection

Seeing the market trend and preferences of buyers, it was felt that a new look was required. A collection of innovative digital designs were created using a theme. Innovative designs are creative designs, different than the existing practices which include the selection and placement of the motif, colour combination and style as per latest trend. The theme "OCEAN-LIFE" was selected with the consent of major advisor and researcher on the basis of results of market survey and also the related literature available on canvas embroidery. All the consumers were fed-up with the existing designs i.e. geometrical, floral, animal and human motifs and demanded new innovative designs. Moreover not a single design of canvas embroidery was observed on the selected theme during village and market survey.

All possible abstract and symbolic pictures of 'Ocean-life' were collected from internet and related literature for the development of digital embroidery designs. Ten innovative designs were developed using eXPerience Wings/XP Wings, Version 2.5 embroidery software. This collection included various motifs, showing various moods of water, aquatic plants and living organisms like fish and shell, ships, boats, some symbolic motifs like sun-glasses, liquor bottle and easy chair along with different under water and beach scenes in natural, stylized and abstract form.

A border design for kurti and belt were the top ranked design preferred by experts for value added embroidered articles. According to experts, these top designs of each selected article were the best designs as per size, shape and end-use of articles. They also opined that the selected theme was very well depicted in these designs. These top ranked designs of each article was converted into cross stitch and embroidered in suggested placement and colour.

Value Addition Techniques

The four value addition techniques i.e. fabric thread, stitches and embroidery ornamentation material were selected by the advisor and researcher on the basis of market survey and related literature available on canvas embroidery.

Raw Material and Canvas Stitches

The raw material was procured from local market by compiling the suggestions of experts and availability of raw material in the market. So, as per recommendations of expert, thin white cotton for *Kurti*, white thick *khadder* for belt was selected. As far as colour of threads/motifs was concerned, the experts preferred that it should be according to theme. So bright rainbow colours were selected for digital canvas embroidered articles and colour combination of each article was kept different.

Mirpuri (2011) stated that bright colour depicts a bold attitude of the wearer, therefore, works as an excellent stress buster in today's fast and stressful life. Orange, sea-green, magenta and indigo are modern woman's choice of colours.

Sequins and beads of various size and colour were selected as per requirement of the design. The four types of stitches, i.e. composite, straight, diagonal and cross stitches were selected. The experts recommended that although as many stitches as possible as per designs can be used but these should not dominate the basic canvas embroidery stitch i.e. the cross stitch. It is necessary to maintain the beauty of this art. The other suggestion was that the size of cross stitch is

also very important as the machine embroidered articles rendered in tiny cross stitch do not exhibit the canvas embroidery.

Development of Digital Canvas Embroidery Articles

The selected design of each article was embroidered in suggested placement and colour. These six digital canvas embroidery articles were produced at Brahmaputra Needle Craft (Pvt.) Limited, Okhla, New Delhi in the monitoring of designer and researcher.

Belt

The design which was selected for belt having three motifs, conch shell, sea shell and star fish. The design was embroidered on white thick *khadder* fabric with silken threads of three colours, royal blue, magenta and parrot green in cross stitch (1.5 mm x 1.5 mm size). Metallic threads were used to render the composite stitches in as experts opined that metallic threads will enhance the details and beauty of composite stitches. Five stitches namely upright cross stitch, herringbone, satin, diamond eyelet and oblong cross with back stitch were supplemented with cross stitch. The design was also accentuated with seed and bugle beads and tiny sequins. These embroidery ornamentation materials enhanced the beauty of design by adding glitter to it. A buckle (lock buckle) was attached to belt. It allowed easy adjustment according to different waist measurement without distorting the embroidery.

Kurti

For making a value added *Kurti*, a border design consisting of four motifs, i.e. horse fish, star fish, sea shell and water bubble (swirl form) was the preferred design embroidered in suggested placement. As per experts' suggestions, this placement was of classic evergreen style, suitable for every group of consumers. *Kurti* with narrow 'v' neck and quarter length sleeve were the selected constructional features. Four colours, i.e. sea-green, yellow, *ferozi* and magenta were selected very brilliantly as sea-green colour is the hot trend of this season and combination of magenta, yellow and *ferozi* separately with white are considered as so last generation. The selected design of *kurti* was accentuated in cross stitch (2.0 mm x 2.0 mm size) in silken threads on white cotton fabric. The design was supplemented with three additional stitches, i.e. diamond eyelet, satin and zig-zag satin stitch in silken and metallic threads, which highlighted the minute details of design and also add shimmer to it. Seed and bugle beads locally known as '*cut-dana*' and small sequins were used to complement the design. Frill lace was used as trimmings to enhance the overall look of value added *Kurti*.

Acceptability and Comparative Analysis of Value Added Canvas Embroidery Articles

Acceptability is operationalized as mental readiness of the respondents for adoption of value added articles. Acceptability level of consumer for value added articles on various design parameters and their cost, preferential order of the consumers for the value added articles on the basis of overall appearance and value addition techniques and opinion of consumers regarding comparison of traditional and value added articles is included in this section. Fifty consumers already selected for studying their preferences for canvas embroidery articles and their attributes, were again contacted to have their acceptability for the developed value added articles.

Acceptability Level of consumers for Value Added Articles on Various Design Parameters

Acceptability level of consumers for value added articles was judged on the basis of various design parameters. The data pertaining to acceptability level of six developed articles are presented in Table 1 & 2.

Table 1: Acceptability Level of Consumers for Value Added Belt (n=50)

Sr. No.	Parameters	Acceptance Level			Weighted Mean Score
		Highly Acceptable	Fairly Acceptable	Acceptable	
1.	Eye-catching Design	46	4	-	4.92
2.	Design Placement	19	21	10	4.18
3.	Motifs used	46	4	-	4.92
4.	Appropriate Design Proportion	19	19	12	4.14
5.	Colour Combination	42	8	-	4.84
6.	Style	18	22	10	4.16
7.	Workmanship	44	4	2	4.84
8.	Shape	5	10	35	3.40
9.	Utility	19	18	13	4.12
10.	Uniqueness	19	20	11	4.16

Highly Acceptable = 4.21 – 5.00; Fairly Acceptable = 3.41 – 4.20; Acceptable = 2.61 – 3.40; Somewhat Acceptable = 1.81 – 2.60; Not Acceptable = 1.00 - 1.80

It is revealed from the data in Table 1 that belt was highly acceptable on the basis of eye-catching design and motifs used (WMS 4.92), colour combination and workmanship (WMS 4.84). The other features i.e. design replacement (WMS 4.18), style and uniqueness (WMS 4.16), appropriate design proportion (WMS 4.14) and utility (WMS 4.12) were assessed as fairly acceptable and shape (WMS 3.40) was assessed as acceptable. Overall acceptability was found to be highly acceptable with WMS 4.36.

As indicated in Table 2, eye-catching design, workmanship (WMS 4.94), design placement, motifs used and colour combination (WMS 4.92) were found to be highly acceptable features of *Kurti*. Style, uniqueness (WMS 4.18), appropriate design proportion and utility (WMS 4.16) were adjudged to be fairly acceptable while constructional features of *Kurti* were assessed acceptable (WMS 3.38). On an average, the acceptability of *Kurti* was found to be highly acceptable with WMS 4.47.

Table 2: Acceptability Level of Consumers for Value Added Kurti (n=50)

Sr. No.	Parameters	Acceptance Level			Weighted Mean Score
		Highly Acceptable	Fairly Acceptable	Acceptable	
1.	Eye-catching Design	47	3	-	4.94
2.	Design Placement	46	4	-	4.92
3.	Motifs used	47	2	1	4.92
4.	Appropriate Design Proportion	19	20	11	4.16
5.	Colour Combination	46	4	-	4.92
6.	Style	19	21	10	4.18
7.	Workmanship	47	3	-	4.94
8.	Shape/Constructional features	5	9	36	3.38
9.	Utility	18	22	10	4.16
10.	Uniqueness	19	21	10	4.18

Highly Acceptable = 4.21 – 5.00; Fairly Acceptable = 3.41 – 4.20; Acceptable = 2.61 – 3.40; Somewhat Acceptable = 1.81 – 2.60; Not Acceptable = 1.00 - 1.80

Comparative evaluation of value added articles was done with the help of aggregate weighted mean score. Weighted mean scores of all the parameters of each article were added and divided by number of parameters (10) to calculate aggregate WMS. It is evident from the aggregate weighted mean score that both value added articles were found highly acceptable in descending order i.e. *Kurti* (4.47), belt (4.36).

Innovative designs, colour combination and workmanship of both the articles were the most appreciated features.

Preferential Order of Consumers for the Digital Canvas Embroidery Articles on the Basis of Overall Appearance

Consumers were asked to give their preferences in rank order for the value added canvas embroidered articles on the basis of overall appearance. The *Kurti* was ranked 1st with highest score 6.0 as it was considered as innovatively designed fresh arrival of canvas embroidery article in the market. Belt was ranked-II (5.70) due to its Indo-western style. A few consumers remarked belt as unisexual articles.

Value Added Articles



Kurti



Belt

CONCLUSIONS

Innovative digital canvas embroidery designs, their placement, colour combination and style in consonance with the latest market trend played an important role in imparting the novel look to the existing canvas embroidery.

It can be concluded that the fine skill of traditional canvas embroidery has been transferred successfully to high value articles of contemporary use and this aspect of contemporizing and reviving traditional art of canvas embroidery can give a new face to this art for the contemporary application.

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